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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,632	08/30/2001	Davie F. Craddock	AUS920010475US1	9075

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EXAMINER

KIM, HONG CHONG

ART UNIT	PAPER NUMBER
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2186

DATE MAILED: 03/29/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/943,632

Applicant(s)

IMES, KEVIN REID

Examiner

Hong C Kim

Art Unit

2186

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Detailed Action

1. Claims 1-30 are presented for examination. This office action is in response to the application filed on 8/30/2001.
2. Applicants are reminded of the duty to disclose information under 37 CFR 1.56.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The title should be more specific to differentiate the invention from similar inventions in the patent literature. Also, "determining a current number of outstanding operation" and "quiescent indicator" aspects of the invention should be mentioned in the title so that the title is more descriptive.

4. Applicants are requested to update the status of the related U.S. patent application referred to on pages 33-34 in specification, accordingly (e.g., U.S. Patent Application Serial No. ###/###,### filled Sept. 07, 1990, now abandoned; ..., now U.S. Patent #,###,### issued Jan. 01, 1994; or This application is a continuation of Serial Number ###/###,###, filed on December 01, 1990, now abandoned; ...etc.). Also applicants are requested to include the status of the related U.S. applications or patents in the CROSS-REFERENCE TO RELATED APPLICATIONS section and in any other corresponding area in the specification.

Claim Objections

5. Claims 2-4, 9, 12-14, 19, 22-24, and 29 are objected to because of the following informalities: It appears that "quiesce" should be changed to --quiescent--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claims 1-5, 9, 11-15, 19, 21-25, and 29 are rejected under 35 U.S.C. 102(a) as being anticipated by Martin et al. (Martin) U.S. Patent 6,658,522.

As to claims 1, 11, and 21, Martin discloses the invention as claimed. Martin discloses a method of swapping out a memory region in a system area network, comprising: instructing a process to inhibit further operations to the memory region (col. 14 lines 15-16, lock the PFD); determining if a current number of outstanding operations to the memory region is zero (col. 4 lines 55-56, reference count value is zero reads on this limitation); and swapping out the memory region if the current number of outstanding operations to the memory region is zero (col. 4 lines 55-59).

As to claims 2, 12, and 22, Martin discloses the invention as claimed above.

Martin further discloses wherein instructing the process to inhibit further operations to the memory region includes setting a quiesce indicator for the memory region (col. 4 lines 54-56, reference count value).

As to claims 3, 13, and 23, Martin further discloses wherein the quiesce indicator is located in a fixed memory in association with the memory region (col. 4 lines 54-56).

As to claims 4, 14, and 24, Martin further discloses wherein the quiesce indicator is located in a fixed memory in association with the memory region (col. 4 lines 54-56).

As to claims 5, 15, and 25, Martin further discloses wherein determining if a current number of outstanding operations to the memory region is zero includes determining if the current outstanding operation count is zero (col. 4 lines 54-59).

As to claims 9, 19, and 29, Martin further discloses further comprising: swapping in the memory region (col. 4 lines 54-56); and resetting the quiesce indicator to allow further operations to the memory region (reference count value is zero reads on this limitation).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6-8, 10, 16-18, 20, 26-28, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martin et al. (Martin) U.S. Patent 6,658,522 in view of Cutts, Jr. et al. (Cutts) U.S. Patent 5,890,003.

As to claims 6, 16 and 26, Martin discloses the invention as claimed above.

However, Martin does not specifically disclose wherein swapping out the memory region includes setting a valid bit in a protection table entry associated with the memory region to indicate the memory region is invalid.

Cutts discloses wherein swapping out the memory region includes setting a valid bit in a protection table entry associated with the memory region to indicate the memory region is invalid (col. 29 lines 25-35) for the purpose of increasing access speed by utilizing a table and a status bit because utilization of the table and the status would prevent to access the much slower memory region.

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate wherein swapping out the memory region includes setting a valid bit in a protection table entry associated with the memory

region to indicate the memory region is invalid taught by Cutts into the system of Martin for the advantages stated above.

As to claims 10, 20, and 30, Martin and Cutts disclose the invention as claimed above. Cutts further discloses further comprising: swapping in the memory region; and resetting the valid bit to indicate the memory region is valid (col. 29 lines 25-35).

As to claims 7, 17, and 27, Martin and Cutts disclose the invention as claimed above. Cutts further discloses wherein swapping out the memory region includes deregistering the memory region (col. 29 lines 25-35).

As to claims 8, 18, and 28, Martin and Cutts disclose the invention as claimed above. Cutts further discloses further comprising: swapping in the memory region; updating an address translation table based on the swapping in of the memory region (col. 29 lines 25-35).

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached PTO-892.

2. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) days from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the application (see 35

USC 133, MPEP 710.02, 710.02(b)).

3. When responding to the office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections. See 37 C.F.R. ' 1.111(c).

4. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

5. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Hong Kim whose telephone number is (703) 305-3835. The Examiner can normally be reached on the weekdays from 8:30 AM to 5:00 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Matt Kim, can be reached on (703) 305-3821.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

6. **Any response to this action should be mailed to:**

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Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to TC-2100:
(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

HK
Primary Patent Examiner
March 21, 2004

